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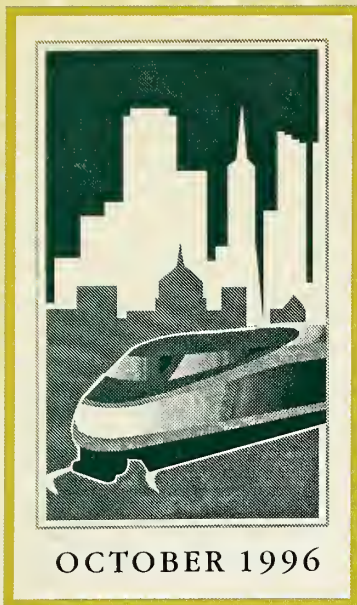
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CALTRAIN SAN FRANCISCO
DOWNTOWN EXTENSION PROJECT
CONCEPTUAL DESIGN AND DRAFT EIS/EIR

Value Capture/Joint Development Evaluation Report

PENINSULA CORRIDOR JOINT POWERS BOARD

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**FINAL
WORKING PAPER**

212
**JOINT DEVELOPMENT OPPORTUNITIES
BY DOWNTOWN SAN FRANCISCO'S
METRAIN AND BUS FACILITIES**



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**EDWARD KOTIN MOUCHLY GROUP
IN ASSOCIATION WITH GENSLE**

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Joint development
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I. INTRODUCTION

STUDY PURPOSE AND INTRODUCTION

The purpose of this working paper is to explore opportunities for joint development in association with the extension of CalTrain into downtown San Francisco and relocation of the existing Transbay Terminal bus operations. An extensive engineering effort has been underway to research and identify relocation, system routing, and system operations alternatives to bring CalTrain downtown, and to assess their associated costs. This effort has been coordinated with a concurrent and parallel effort focused on determining an appropriate downtown location to rebuild the existing Transbay Terminal.

The CalTrain study efforts culminated in the selection of the existing Transbay Terminal site as the preferred site for the future downtown CalTrain terminal station, although several routing options from the existing station location at Fourth and Townsend streets to the Transbay Terminal site are still under consideration. In this alternative, the terminal would be developed one level below grade, with the ground floor/street level available for ticketing, waiting areas, retail, and other uses. Current plans suggest a new terminal could be completed by approximately 2006, assuming relocation of the existing bus operations.

For the Transbay bus terminal, a site straddling Howard Street between Main and Beale streets has been selected by the San Francisco Board of Supervisors as the locally preferred alternative for this relocated facility. This terminal will serve Alameda Contra Costa Transit (AC Transit), Greyhound, Golden Gate Transit, SamTrans, and other public and private bus operators. However, it awaits final confirmation by the City, Caltrans, relevant bus operators, and the JPB. The proposed bus terminal site is located east and south of the planned CalTrain terminal. Current plans include development of a below-grade passageway connecting the new bus terminal and the new CalTrain station. An optional underground connection with the existing Embarcadero BART and Muni station on Market Street could also be constructed. With the CalTrain terminal-BART connection, all three major transit locations would be linked together, greatly facilitating commuter transfers between modes of public transportation.

There are several options for providing Muni bus access to the new CalTrain and bus terminals. The Muni prefers relocation of its current boarding area in front of the Transbay Terminal to a location immediately off Mission Street, on a site between Mission, Howard, Fremont, and Beale streets. A second alternative for surface bus access is the Beale Street Mall, which would provide two-way bus service on Beale Street between Market and Folsom streets. In addition to passenger boarding and disembarking, both alternatives would allow for Muni bus staging and layovers.

JOINT DEVELOPMENT DEFINITION, OBJECTIVES, AND TYPES

Joint development is an established method of "value capture" which generates real estate revenues from the development of a private project utilizing publicly-owned land on air rights. In the case of the future CalTrain station and associated bus terminal, this capture of private value would provide a return on the public's investment in the transit facility, where a private joint development project could be located inside of, on top of, or adjacent to the new terminals.

There are three closely related objectives for joint development in association with the new downtown transportation terminal:

1. to generate private sector revenue to fund some of the construction and/or operation of the transportation facility;
2. to capture some of the increase in property values created by improved transportation provided by the new facility; and
3. to increase ridership for the transit system.

This paper mostly focuses on the first objective, exploring appropriate types of development on public property associated with the new transit facilities or nearby. These public properties, identified in Exhibit 1, include properties currently occupied by the Transbay Terminal, properties likely to be acquired to facilitate train station development, other State-owned properties, and properties recently vacated by the tear-down and removal of the earthquake-damaged Embarcadero Freeway system. Exhibit 1 identifies all public ownership in the general area. This paper, however, focuses primarily on the properties immediately associated with the proposed transit facilities.

There are many examples of joint development in transportation projects throughout the United States, Canada, Europe and Asia. The most common types of projects have been developed through the lease or sale of ground rights of transit-owned property adjacent to a transit facility or the lease or sale of air rights above a facility.¹ The joint development use also sometimes shares an entrance with the transit facility, for the mutual benefit of both uses. Joint development is not exclusive to transit projects; other joint development projects have been developed in association with other public entities, such as ports, redevelopment agencies, highway departments, and airports.

¹A recent study prepared for the San Francisco Planning Department and San Francisco Redevelopment Agency presents selected examples of transit joint development. This February 1994 paper, *Transbay Area Plan Working Paper, Joint Development Survey and Case Studies*, by Pittman & Hames Associates, was prepared to explore the potential for implementing a Transbay Terminal joint development project upon relocation of the existing bus operations.

EXHIBIT 1

Public Land Ownership



8

Market

Mission

Minna

Natoma

First

Fremont


Howard

Beale

Main

Folsom

LEGEND

 Publicly Owned Land

Caltrain, Downtown Expansion, San Francisco

STUDY ISSUES

The public has encouraged the Peninsula Corridor Joint Powers Board (JPB) and San Francisco to look closely at joint development as a means for funding a portion of the construction and/or operating costs of the transportation center. In order to optimize the role of joint development in this facility, three main questions must be answered:

1. What is the market for land uses that are compatible with the CalTrain and bus facilities?
2. Can the CalTrain and bus terminals be designed to facilitate joint development without sacrificing efficiency and convenience of transit operations?
3. Given market demand and site and design constraints, what type and size of joint development projects should be pursued?

The following discusses issues that must be considered in answering these questions. In doing so, the study examines two alternative development scenarios for the relocation of the Transbay bus terminal: first, the City's preferred alternative at the Main-Beale site, and second, an alternative location at the existing Transbay Terminal site. Both alternatives would include a new downtown San Francisco CalTrain station underground at the Transbay Terminal site. The study was prepared by Sedway Kotin Mouchly Group (SKMG), real estate economists involved in the overall relocation study, with design input and assistance from Gensler, architects involved in the overall relocation study.

A public workshop was held in San Francisco on May 15, 1996, to explore the issues reviewed in this paper, and featured guest speakers discussing their experiences with transit-based joint development in other U.S. locations and San Francisco's market environment.

SUMMARY OF CONCLUSIONS

SKMG conducted analyses of San Francisco's office and retail markets to ascertain short and long term demand for potential joint development opportunities associated with the new downtown San Francisco train and bus facilities. The market findings suggest that San Francisco's office market is unlikely to experience new development in the near term, as office rents are too low to support new construction and there is excess supply in the market. However, by the year 2005 and beyond, there should be sufficient market demand to warrant new downtown office development.

There are a number of office projects already approved, awaiting improvement in the local market prior to construction. Many of these projects are located in the Transbay Terminal area. In addition, several well-located opportunities for joint development of office properties associated with the new transit facilities have been identified. However, these opportunities are not as well positioned as other properties in the area that have already received full development approvals. Accordingly, SKMG recommends that the terminal facility designs permit future

development of office towers, but that such development not be planned concurrent with terminal completion. Moreover, for the joint development opportunities over the train station or rail tunnel, there may be added cost implications or design constraints that could influence their marketability and their revenue-generating potential.

In contrast to office development, SKMG believes there is potential for near-term joint development of retail space. SKMG investigated the market and design potential for three types of retail space: commuter-oriented; office-oriented; and destination retail. Given market conditions, the supply of competitive retail venues, and the location of available joint development retail opportunities, SKMG recommends that only commuter-oriented and office-oriented retail opportunities be considered, including restaurants. The majority of opportunities available for destination retail would require mezzanine level development. SKMG believes that such development will be extremely difficult to implement, but could be successfully developed, preferably, but not necessarily, in a scenario that integrates the bus and rail station in a single facility. Demand for destination retail would be maximized, however, if both transit modes were combined in one facility. Such a center would require about 150,000 square feet of retail and restaurant space. Nevertheless, successful execution of such a development will require exceptional skill in programming, design, and implementation.

Joint development programs of the terminal properties will require considerable imagination and flexibility, to allow for future phased development in a manner that also maximizes the properties' potentials. It will be important for the joint development uses to enhance and not detract from the operational efficiency of the transit facility.

II. SAN FRANCISCO DEVELOPMENT MARKET

DESCRIPTION OF SURROUNDING AREA

The real estate market area encompassing the CalTrain downtown terminal project is commonly known as the South of Market Area (SOMA). The boundaries are Market Street to the north, the Embarcadero and waterfront to the east, the China Basin Channel to the south, and Fifth Street to the west. Over the long term, this area is anticipated to have strong new development potential, including joint development. Some of this will be related to the proposed CalTrain downtown extension project and other new major area developments, such as a potential stadium for the San Francisco Giants. Two developing areas within SOMA are redevelopment project areas: the South Beach-Rincon Hill and Yerba Buena redevelopment project areas. Currently, the San Francisco Redevelopment Agency is creating an additional SOMA redevelopment project area, this one to include the Transbay Terminal site and its environs. Planning studies are underway to develop land use alternatives for the proposed project area.

The current character of SOMA real estate development reflects changing land uses over time. The once predominantly industrial area has evolved into an interesting mix of uses ranging from historic brick warehouse structures to newer high-rise office buildings. Office towers are generally located north of Folsom Street and relatively new multifamily residential complexes dominate the eastern section near the waterfront. In the Yerba Buena Redevelopment Area, the centerpiece is Moscone Convention Center, which is complemented by numerous cultural facilities, hotels, offices and residential projects. Interspersed throughout SOMA are rehabilitated industrial buildings, most of which have been converted into retail, restaurants, live-work lofts and offices. Another emerging adaptive reuse of existing industrial buildings is high-technology space, which is occupied by research and development, media or computer firms. An example of this is Bryant Street, which is known as "Multimedia Gulch" due to its concentration of media-related firms. The variety of uses illustrates the flexibility of the area's older industrial structures.

The Transbay Terminal site is located near the center of SOMA. Its transit operations serve San Francisco's primary office market well, which is located primarily to the north and east. The bulk of San Francisco's prime office space is located north of Market Street, with the intersection of California and Montgomery streets considered the center, or most prestigious location. By the mid to late 1980s, the north of Market office market was largely built out, with few developable sites remaining. Hence, City policy and market forces created the development of the SOMA Financial District, which encompasses the Transbay Terminal area.

APPROPRIATE JOINT DEVELOPMENT USES

A market analysis was conducted in late 1995 and early 1996 by real estate market consultants under contract to the City of San Francisco regarding options for the redevelopment of the

Transbay Terminal.² This analysis indicated that two land uses provide the greatest promise for joint development in association with a major transit facility – high-rise commercial office and retail space. Both uses could benefit substantially from proximity to the transit facility, albeit for slightly different reasons. Housing joint development was rejected as a possible land use largely because housing built over a transit facility with high patronage presents security issues for residents, while a hotel use was dismissed because the site lacks proximity to major San Francisco tourist and visitor attractions, or other characteristics that would favor hotel development. Instead, other sites within the general area may be more suited to hotel development.

The balance of this paper explores development opportunities and constraints that might be faced by office and retail development in association with the proposed transit facilities. Within the broader area, SKMG believes that residential development is a highly appropriate use, but not in direct association with a downtown San Francisco transit facility. If the subject transit facilities were being developed in a suburban rather than heavily urban setting, residential development would likely be the most appropriate use, as research indicates that residential uses provide the greatest impact on ridership in such settings. In urban settings, however, office uses are the most appropriate type of development, serving as a magnet to transit riders from throughout the region. The Transbay Terminal site is especially well located because it will be near the locus of all public transportation systems serving San Francisco, e.g., CalTrain, Muni, AC Transit, SamTrans, Golden Gate Transit, and BART.

²*Transbay Area Plan Working Paper, Market Analysis*, prepared by Mundie & Associates and Pittman & Hames Associates, December 1995.

III. OFFICE MARKET

EMPLOYMENT ANALYSIS

The health of San Francisco's office market is directly related to economic trends, best measured by changes in employment. San Francisco gained just over 14,400 jobs from 1980 to 1990 (see Exhibit 2 for historic and projected employment trends). However, substantial losses were experienced during the recession from 1990 to 1995, when total employment dropped to 535,000. As a result, almost all employment sectors experienced declines from 1980 to 1995, despite gains achieved in the 1980s. The most heavily impacted sectors include construction; manufacturing; and transportation, communications and utilities; and finance, insurance, and real estate (FIRE). Industries that grew over the past 15 years are services, followed by retail trade and wholesale trade. Demand for office space is traditionally related to FIRE employment; however, portions of the services sector, especially business services and legal services, are also major sources of demand. The decline in FIRE jobs from 1980 to 1995 (17,100) was more than offset by the increase in business services employment (31,600).

Employment forecasts for the 10 years from 1995 to 2005 prepared by the Association of Bay Area Governments (ABAG) call for significant increases in business services employment, with very modest growth in FIRE employment. The total number of jobs in San Francisco is projected to increase by almost 66,000 during this time frame, much of this in the business services sector. Although some office-using portions of the service sector, such as legal services, are not separately estimated, the growth in overall service jobs generally indicates an increase in future demand for office space. As a proxy for the rate of future growth in office demand as projected by ABAG, the combined average annual growth rate for FIRE and business services from 1995 to 2005 is 1.5 percent. This compares to 1.2 percent for all employment, indicating that office-using employment growth is anticipated to outpace overall employment growth. SKMG believes ABAG's growth projections are extremely aggressive and overstate the total amount of future employment growth. However, SKMG concurs with ABAG in that the rate of office-using employment growth will exceed overall employment growth.

Continued employment growth is projected by ABAG through 2015, when San Francisco employment is projected to total 638,700, reflecting an increase of 38,700 over employment in 2005. While longer term projections are less precise, because it becomes difficult to project long-term economic trends, the projections for 2015 suggest less growth from 2005 to 2015 than from 1995 to 2005. Again, only modest FIRE growth is projected, but service employment, including business services, is anticipated to dominate overall prospects for growth. For this time period, the combined average annual growth rate for FIRE and business services is projected to average 1.4 percent, compared to 0.6 percent for all employment. As with the earlier figures, SKMG believes that ABAG's overall projections are overstated, but that the rate of office-using employment growth will indeed exceed the total employment growth rate.

EXHIBIT 2
EMPLOYMENT TRENDS AND PROJECTIONS
SAN FRANCISCO
1980-2015

Industry	Employment				Annual Compounded Percent Change				
	1980	1990	1995	2005	2015	1980-1990	1990-1995	1995-2005	2005-2015
Agriculture and Mining	3,302	2,250	2,120	2,160	2,080	-3.8%	-1.2%	0.2%	-0.4%
Construction	24,070	16,000	14,630	19,270	16,760	-4.0%	-1.8%	2.8%	-1.4%
Manufacturing	44,642	35,150	34,590	35,780	34,270	-2.4%	-0.3%	0.3%	-0.4%
High Technology	4,130	3,770	4,050	5,390	6,140	-0.9%	1.4%	2.9%	1.3%
Trans./Comm./Util.	66,072	39,420	38,080	40,300	41,550	-5.0%	-0.7%	0.6%	0.3%
Wholesale Trade	22,745	29,900	22,960	26,700	25,350	2.8%	-5.1%	1.5%	-0.5%
Retail Trade	69,339	78,380	72,510	79,070	83,070	1.2%	-1.5%	0.9%	0.5%
F.I.R.E.	85,343	73,770	68,200	70,230	76,010	-1.4%	-1.6%	0.3%	0.8%
Services	110,425	123,320	127,930	144,630	154,940	1.1%	0.7%	1.2%	0.7%
Business Services	61,470	101,190	93,070	116,720	138,070	5.1%	-1.7%	2.3%	1.7%
Government	60,662	63,490	56,470	59,880	60,430	0.5%	-2.3%	0.6%	0.1%
Total Employment	552,200	566,640	534,610	600,130	638,670	0.3%	-1.2%	1.2%	0.6%

Sources: Projections 1996, Association of Bay Area Governments; Sedway Kotin Mouchly Group.
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OFFICE MARKET TRENDS

The amount and timing of the joint development of office space in association with the new CalTrain station will be dependent upon the dynamics of San Francisco's office market, a review of which follows.

Historical Trends

The San Francisco historical office market is centered in the North of Market Financial District, traditionally defined as the triangle bounded by the Embarcadero, Market Street, Kearny Street and Washington Street. In the 1980s, significant expansion of this office market occurred south of Market Street due to the lack of developable sites in the traditional Financial District, as well as development incentives granted by the City and County of San Francisco. As a result, the "South of Market Financial District" has become an important submarket.

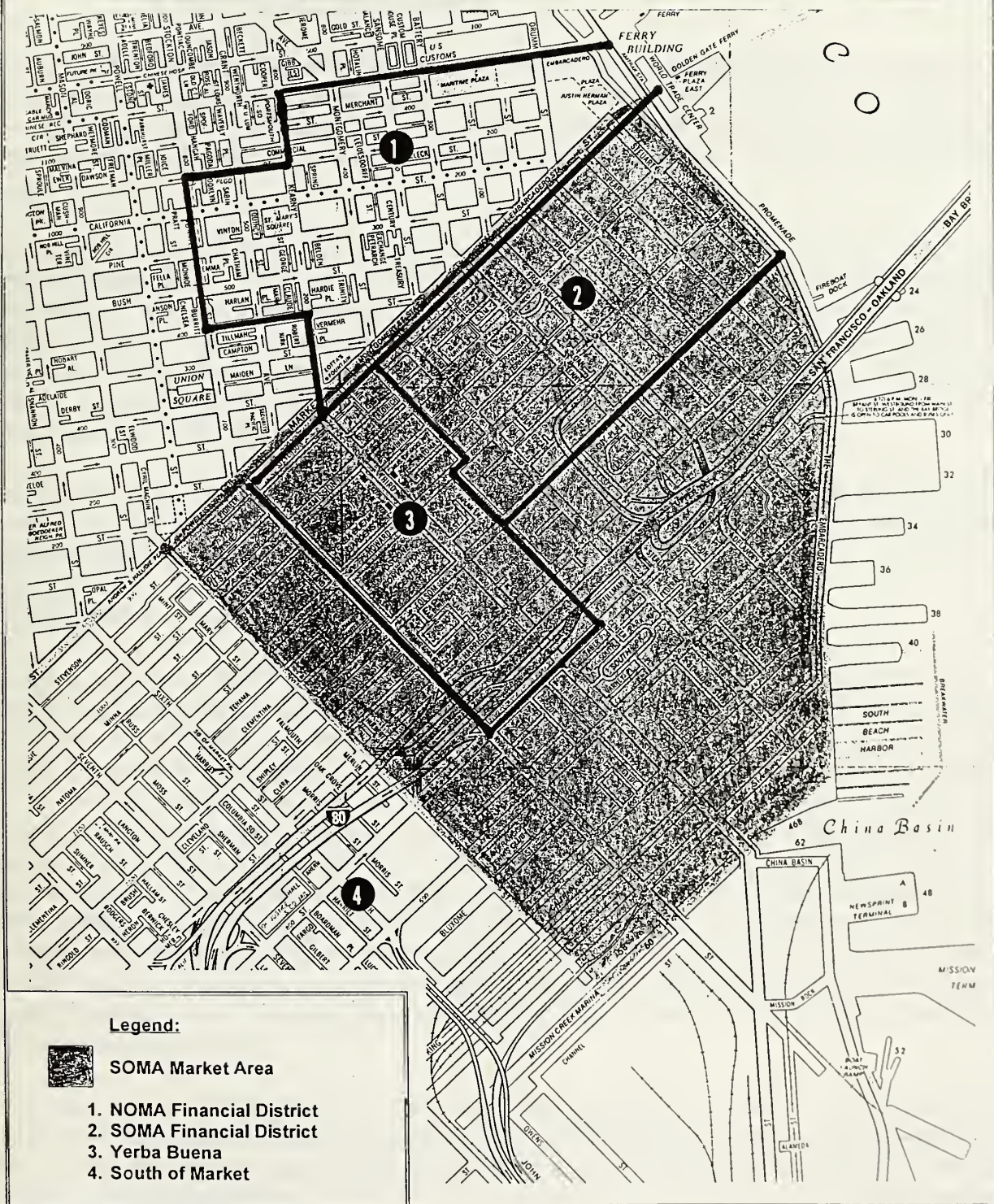
The South of Market Financial District is bounded by the Embarcadero, Folsom Street, New Montgomery Street and Market Street (see Exhibit 3). In addition, there are two other SOMA office submarkets, as defined by commercial brokerage firms. The "Yerba Buena" district is bounded by New Montgomery Street, Harrison Street, Fourth Street and Market Street. The remainder of SOMA comprises a portion of the "South of Market" office district (using the brokerage definition); however, this area extends south to Mission Bay and generally includes older office and converted industrial buildings in less desirable locations.

San Francisco's office market has changed dramatically over the past 20 years. After the recovery from the 1974-75 recession, demand for San Francisco office space soared. With strong demand and minimal supply increases, vacancy rates plunged to less than 1.0 percent by 1980-81. Correspondingly, annual rental rates escalated to an average of \$36.00 per square foot. There were two responses to these tight market conditions. On the supply side, a wave of construction took place, with 14.7 million square feet of new office space built from 1980 to 1986, comprising a 67 percent increase. On the demand side, large corporations, such as Bank of America, Chevron and Pacific Bell, began relocating support and clerical staff to less expensive suburban locations in Alameda and Contra Costa counties. Consequently, by 1987, vacancy rates had risen to 17.0 percent and rental rates had declined to \$24.00 per square foot.

Despite changing market conditions, developers were still constructing new buildings in the mid- to late-1980s, mainly as a response to the pending implementation of the Downtown Plan and Proposition M, which severely restricted future development and increased development costs. The Downtown Plan was passed in 1985 with the following provisions:

- new construction was limited to 950,000 square feet per year;
- floor-area ratios (FAR) for new buildings north of Market Street were reduced from 14:1 to 9:1;
- allowable floor plates were reduced and more set-backs were required for new buildings (reducing efficiency);
- allowable building heights were reduced;

**EXHIBIT 3
SELECTED OFFICE SUB-MARKETS
SAN FRANCISCO
MAY 1996**



Source: Sedway Kotin Mouchly Group.
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- renovation of historical buildings was encouraged;
- developers were required to provide amenities in new projects, such as affordable housing, child care, public art and open space; and
- a discretionary selection process for building permits was established for buildings of 50,000 square feet and larger.

Proposition M, passed by San Francisco voters in November 1986, superseded the provisions of the Downtown Plan. Proposition M further reduced the annual office construction allowance to 475,000 square feet. In addition, all projects over 25,000 square feet in size are subject to an extensive competitive public review procedure held annually, commonly known as the "beauty contest."

Subsequent to the enactment of Proposition M, however, the San Francisco office market weakened substantially. With over 9.5 million square feet of new space completed between 1986 and 1991, and with declining absorption levels, the market was substantially overbuilt by year-end 1991, with an overall vacancy rate of 14 percent. Since 1991, no additional office space has been completed in San Francisco, during a period in which absorption declined further, as a result of a national recession that was even more severe in California. Only recently, since 1994, has the market shown signs of improvement.

Due to this weak market, numerous office buildings were approved under the Proposition M "beauty contest" that have not been constructed. In recent years, the process was suspended altogether due to a lack of project applicants.

Current Status

Exhibit 4 presents current statistics for the San Francisco office market, including the North of Market Financial District and the three SOMA submarkets: South of Market Financial District (location of the subject properties), Yerba Buena, and South of Market. The overall San Francisco market has an inventory of 58.9 million square feet and a vacancy rate of 10.1 percent. Of the three submarkets, the South of Market Financial District has the largest inventory and a vacancy rate of 11.2 percent; Class A space is 10.8 percent vacant, while Class B space is 12.6 percent. The South of Market Financial District's vacancy level is relatively high, as this submarket includes some of the last buildings constructed during the late 1980s and early 1990s. These buildings, entering a market already overbuilt at the start of the recession, had to offer favorable rents and concessions in order to attract tenants. These efforts came at the expense of Class B buildings, which lost tenants to Class A buildings. With declining rental rates, better located North of Market Financial District buildings attracted tenants from the SOMA submarkets at competitive rental rates.

Yerba Buena has a small inventory and a fairly low vacancy level. This area is similar to the South of Market Financial District market in terms of product age range and rental rates. The South of Market submarket extends beyond the study area and consists of mainly light industrial space or converted warehouses, with generally low rents and inferior product quality compared to other office submarkets.

EXHIBIT 4
OFFICE SUBMARKET STATISTICS
SAN FRANCISCO
FIRST QUARTER 1996

Market Area (1) Class	Total Inventory	Direct Availabilities	Direct Vacancy	Sublease Availabilities	Sublease Vacancy	Overall Available Square Footage	Overall Vacancy Rate	Asking Lease Rates (2)
Total San Francisco	58,935,236	4,884,625	8.3%	1,050,257	1.8%	5,934,882	10.1%	\$20.99
Class A	42,006,251	2,961,228	7.0%	918,509	2.2%	3,879,737	9.2%	\$23.71
Class B	8,317,333	1,051,801	12.6%	81,689	1.0%	1,133,490	13.6%	\$17.82
NOMA Financial District	31,469,231	2,387,599	7.6%	620,113	2.0%	3,007,712	9.6%	\$24.34
Class A	24,548,853	1,618,212	6.6%	541,579	2.2%	2,159,791	8.8%	\$27.44
Class B	2,907,891	371,389	12.8%	31,340	1.1%	402,729	13.8%	\$19.10
SOMA Financial District	10,499,120	930,110	8.9%	242,922	2.3%	1,173,032	11.2%	\$17.63
Class A	8,143,931	645,140	7.9%	233,822	2.9%	878,962	10.8%	\$16.44
Class B	1,127,784	133,526	11.8%	9,100	0.8%	142,626	12.6%	\$18.58
Yerba Buena	1,066,710	76,917	7.2%	2,651	0.2%	79,568	7.5%	\$15.98
Class A	NA	NA	NA	NA	NA	NA	NA	\$20.70
Class B	NA	NA	NA	NA	NA	NA	NA	\$11.66
South of Market	5,140,570	590,842	11.5%	33,128	0.6%	623,970	12.1%	\$17.63
Class A	NA	NA	NA	NA	NA	NA	NA	\$16.44
Class B	NA	NA	NA	NA	NA	NA	NA	\$18.58

Notes:

(1) Market Area:

NOMA Fin. District
SOMA Fin. District
South of Market
Jackson Square
Yerba Buena
Union Square

Boundaries:

The Embarcadero, Washington St., Kearny St. and Market St. (including North and South Side of Market St.)
Market St., New Montgomery St., Folsom St. and the Embarcadero
Market St. to Southern San Francisco city limits (excluding SOMA Fin. District and Yerba Buena submarkets)
Washington St., Kearny St., Broadway St., and the Embarcadero
New Montgomery, Hawthorne, Harrison, Fourth and Market Streets
Market, Kearny, Sutter and Taylor Streets

(2) Weighted average of full service asking rates for all classes.

Sources: Cushman and Wakefield Office Market Report, First Quarter 1996; Sedway Kotin Mouchly Group.

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Near-term prospects for the office market include more competition, despite strong leasing activity, as space is returned to the market. The largest amount was recently vacated by Pacific Gas & Electric, which returned to its headquarters facility on Market Street after lengthy seismic upgrade and modernization work.

Proposed Projects

There are 11 office projects (including 12 buildings) approved or planned for construction in San Francisco but as yet unbuilt (see Exhibit 5). Of the 12 buildings, six are located in SOMA with a total of 1.9 million square feet. In addition, Mission Bay is anticipated to have the potential for development of several million square feet of space (Catellus recently announced its intention to reduce the amount of planned office space at Mission Bay). In other areas of San Francisco, there are six office buildings planned, with a total of 2.0 million square feet of space. Despite their approvals, most of these projects are not moving forward; speculative office development is presently considered to be infeasible, as rents are not sufficiently high to support construction costs. SKMG believes that little new speculative office construction will be supportable until after the year 2000. Given the number of projects that already have development approvals, new developments are not expected to be proposed until some of these projects proceed.

FUTURE DEMAND

San Francisco currently has 53.0 million square feet of occupied office space and 58.9 million square feet of total inventory. ABAG projects that office-using employment will increase by 1.2 percent annually from 1995 to 2005 and 1.4 percent annually from 2005 to 2015. SKMG believes that ABAG's growth estimates are very aggressive, and expects that only three-quarters of these levels of growth will be achieved, or approximately 1.0 percent annually. Short-term projections prepared by other sources are consistent with this lower figure.

Given the 1.0 percent growth assumption in office-using employment, and assuming the market maintains a 7.0 percent vacancy rate (assumed stabilized vacancy rate for such a large market), SKMG projects demand for total inventory of 62.4 million square feet by 2005 and 68.8 million square feet by 2015. These figures reflect annual average absorption of 555,000 square feet from 1996 to 2005 and 600,000 square feet from 2005 to 2015. These figures indicate a demand for 3.5 million square feet of new development by 2005 and an additional 6.4 million square feet between 2005 and 2015.

CONCLUSION

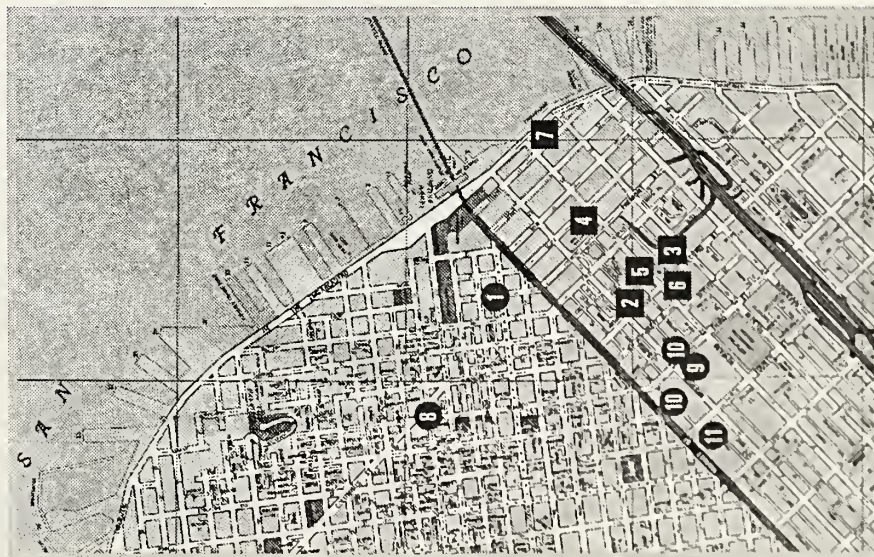
SKMG's office demand estimate is based purely on expectations of employment growth and does not take into consideration development economics. Low market rents will continue to serve as a constraint on new development. However, market dynamics dictate that as demand increases and vacancy decreases, rents will increase. Market participants believe that new construction will be supportable when average annual rents of \$35 per square foot can be achieved.

Exhibit 5

APPROVED BUT UNBUILT OFFICE PROJECTS

First Quarter 1996

SAN FRANCISCO



MAP #	SUBMARKET	PROJECT	OWNER/DEVELOPER	SQUARE FOOTAGE
1	NOMA Financial	150 California St.	PacTel Properties	215,000
2	SOMA Financial	101 Second St.	Markborough Properties	352,122
3	SOMA Financial	299 Second St.	The Ron Kaufman Company	256,000
4	SOMA Financial	300 Howard St.	Bechtel Investment Realty, Inc.	385,712
5	SOMA Financial	524 Howard St.	Theodor Tower, Inc.	200,000
6	SOMA Financial	222 Second St.	Sepulveda Properties	240,000
7	SOMA Financial	Steuart and Mission Sts.	Gap, Inc.	440,000
8	Jackson Square	International Hotel Office Site	Four Seas Investment Group	81,300
9	Yerba Buena	Third and Mission Sts.	Griffin/Related Properties	460,000
10	Yerba Buena	Yerba Buena Gardens, Tower I	To be determined	669,838
10	Yerba Buena	Yerba Buena Gardens, Tower II	To be determined	450,000
11	Union Square	Pacific Center III	Ahmanson Development/Hysan	110,000
TOTAL				3,859,972



Source: Cushman & Wakefield First Quarter 1996 Office Market Report; Sedway Kotin Mouchly Group

The Transbay Terminal area should be very well positioned to attract future office demand when the market rebounds. This attraction is due to the area's favorable location and the visibility potential of select parcels. However, other projects already in the pipeline will have an advantage given their status as approved projects, reducing their time to market when development economics turn favorable. As a result, office-related joint development opportunities will likely lag development of the train and bus stations.

IV. RETAIL MARKET

MARKET NICHES

Transit station area retail development could serve one or more of the following markets: commuters, area office workers, local residents, and tourists. The market for local residents and tourists would largely comprise destination retail, including specialty and department stores that provide a wide selection of comparison goods. The market for office workers and commuters would mostly support convenience retail, such as florists, sundries, newsstands, and food and beverage uses. The overall feasibility of station area retail space and the amount and type of retail would differ depending upon which market was targeted. Issues pertaining to each of these major markets follow.

COMMUTER-ORIENTED RETAIL

Type of Retail

Commuters do not generate large amounts of retail demand. Reliable data are not currently available regarding transit commuter-related spending patterns. However, it is generally accepted that transit commuter retail needs are convenience-oriented, which would limit the size and scope of station area retail opportunities. Transit commuters are en route to their work locations in the morning and trying to meet a scheduled departure at the end of the day. As a result, their time available for retail purchases is generally limited. This suggests that any retail developed exclusively to support commuters should be limited in size and scope, focused on convenience purchases such as flowers, newspapers and magazines, dry cleaning, video rentals, drug store, mini-mart, mail box/UPS/Federal Express, and snacks and beverages, including coffee and pastry.

Examples of existing commuter-oriented retail in San Francisco include the existing retail operations at the Transbay Terminal and several small outlets within downtown BART stations, mostly selling flowers and newspapers. In the past, BART has experimented with locating retail operators with a more extensive range of goods within station areas. However, profits for these operators were largely generated by the sale of food items, which became problematic for BART given that eating and drinking are prohibited in the paid station areas and on the trains.

The amount of supportable transportation center retail catering exclusively to commuters will be dependent upon the commuter volume. This volume will differ if the CalTrain station is independent of the new bus terminal or if they are developed in the same location. It will also be dependent upon the extent to which Embarcadero Station BART or Muni passengers use the planned underground connection between the transportation center and the Embarcadero station, and the location of the retail opportunities within the transportation facility.

Demand Considerations

For the purposes of developing a possible estimate of supportable commuter-oriented space, SKMG assumes that each transit commuter will spend \$500 yearly on commuter-oriented retail (equivalent to \$1.50 per day). Further, SKMG assumes that retail operators will achieve annual average sales of \$250 per square foot (this is a standard industry assumption for convenience-oriented retail sales estimates). With regard to ridership, SKMG assumes that 10,000 CalTrain riders (who make approximately 20,000 daily transit trips) will use the new downtown terminal station daily.³ By 2000, approximately 10,000 bus riders (who will make 20,000 daily transit trips) are assumed to use the new bus terminal.⁴ Based upon these assumptions, the amounts of retail space that could be supported by San Francisco's commuters are as follows:

- CalTrain commuter rail – 20,000 square feet; and
- Bus – 20,000 square feet.

These demand figures may be adjusted upward or downward, depending upon the location of retail relative to transit commuter pedestrian travel patterns. For example, if bus patrons at the Main/Beale Bus Terminal must pass through a retail mezzanine level to get to the ground level, then they would likely spend more than CalTrain riders at the Transbay Terminal site, who could exit at the ground or use the underground connection to Market Street, bypassing possible retail development. SKMG believes, however, that these adjustments would be nominal, accounting for no more than an annual differential of \$100 per commuter. Given the anticipated ridership by 2000, this differential would translate into an increase or decrease in demand of 4,000 square feet, a relatively nominal amount.

Additional demand could be generated by transit patrons commuting through the Embarcadero Station. However, such demand is not likely to comprise a large component, given that riders using this station travel to and from many points in the City, and only a small portion are likely to use the underground walkway connecting the Embarcadero Station with the new bus and CalTrain terminals. The underground connection's largest impact would be increases in CalTrain and bus ridership brought about through improved convenience in transferring between the systems.

The figures regarding supportable commuter-oriented retail for CalTrain and bus passengers cumulatively indicate potential demand for 40,000 square feet. SKMG believes caution should be used in interpreting this finding for two reasons. First, to be supportable, commuter-oriented retail must be highly visible and located along major pedestrian pathways. Retail space in less visible or accessible locations should not be developed. Retail operations without a sufficient volume of foot traffic will not be viable. Second, transit commuter retail spending will be highly associated with the peak commute hours, with demand high in the mornings and late afternoons/

³Draft *CalTrain Ridership Forecasting Results Report*, prepared for the CalTrain Relocation Study by Kolve Engineering, April 1996.

⁴Mundie & Associates and Pittman & Hames, *op. cit.*, p. 48.

early evenings, with little commuter demand at other hours. Thus, any commuter-oriented retail programming must be sensitive to the flow and timing of commuter traffic within the transit station. To even out this flow, these retail spaces should be highly accessible to nearby office users to attract daytime patronage.

As ridership levels increase and the center of gravity of San Francisco's office market increasingly shifts toward the subject site, SKMG believes that the amount of supportable commuter-oriented retail will gradually increase.

OFFICE-ORIENTED RETAIL

Level of Demand

Retail space targeted to serve office employees must have sufficient critical mass to attract repeated demand. Office worker retail spending is limited in scope to restaurant, convenience retail, and select comparison retail goods. Based upon estimates prepared by the International Council of Shopping Centers, SKMG estimates that the average downtown San Francisco office worker spends \$2,500 yearly on retail expenditures in downtown San Francisco, with one-half spent on food and beverage and one-half spent on convenience and comparison shopping goods. The \$500 estimated expenditure for commuters using CalTrain, the new bus facility, and the Embarcadero BART and Muni station is included in this figure.

Existing Outlets

There are already many office worker shopping options available in the general Transbay Terminal area. Hence, any retail that relies on office worker spending would compete with numerous nearby venues such as Rincon Center, Hills Plaza, One Market Plaza, the Embarcadero Center, and numerous office building ground floor retail outlets (see Exhibit 6 for the most prominent office-oriented retail locations). Of all these venues, only the Embarcadero Center provides many comparison shopping opportunities, with the others (including the Embarcadero Center) providing mostly convenience retailing and eating establishments. In addition to the Embarcadero Center, San Francisco's established comparison shopping areas close to the City's financial core already tend to attract most office worker comparison shopping dollars, such as Union Square, San Francisco Centre, and Crocker Galleria.

Many of the existing Transbay Terminal area retail venues either experienced difficulty during their initial lease-up or continue to have rapid tenant turnover or high vacancy, suggesting difficulty identifying their market position or an inadequate level of current demand. For example, Rincon Center, located four blocks northeast of the Transbay Terminal site, has 65,000 square feet of ground level retail space under an office tower and adjoining residential tower. Since its development in 1988, Rincon Center has evolved into a large, highly successful food court (predominantly). Rincon Center is distinguished architecturally, with a pleasing interior space with a unique water feature. Rincon's initial retail program included comparison shopping goods such as apparel and household goods. Over time, these retailers left and their spaces

Exhibit 6

OFFICE-ORIENTED RETAIL CENTERS, EXISTING AND PLANNED

SAN FRANCISCO

May 1996



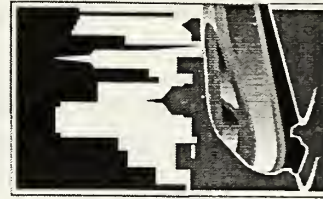
MAP TERMINAL SITE

- 1 Transbay Terminal Site
- 2 Main/Beale Site

MAP RETAIL CENTER

- 3 Hills Plaza
- 4 Marathon Plaza
- 5 One Market Plaza
- 6 Rincon Center

RETAIL SQUARE FOOTAGE
58,000
25,000
53,000
65,000



Sources: Leasing Managers; 1996 Shopping Center Directory, N.R.B.; Sedway Kotin Mouchly Group.

transitioned into additional food or entertainment spaces, suggesting that Rincon Center was not an appropriate comparison goods outlet, given its lack of critical mass and poor street visibility, among other reasons.

One Market Plaza, located across Mission Street from Rincon Center, is another area retail venue dominated by a food court, with some additional ground-floor retailers accessible via a shared lobby area. These ground-floor retailers, which include a card shop, shoe repair, and pharmacy, have direct street access, while the food court tenants do not. There is substantial turnover among One Market Plaza's food court tenants, indicating difficulty in sustaining strong, ongoing demand in an unexciting food court setting.

The Embarcadero Center, which includes 3.4 million square feet of office space and 400,000 square feet of retail space distributed among five buildings, is a more established office-oriented retail venue, located approximately five blocks north of the Transbay Terminal site. Given its large complement of retail space and relatively central location, the Embarcadero Center has a strong comparison shopping goods component, with numerous stores selling apparel, household goods, books, and stationery. Additional comparison goods retailers include jewelry, luggage, computer software, and game stores. The Embarcadero Center also includes many eating establishments and convenience-oriented retailers, maximizing its consumer appeal. Importantly, the development offers a substantial supply of parking. While generally perceived as a highly successful and prestigious retail location, the Embarcadero Center is rarely fully occupied, with vacant storefronts scattered throughout the five-building complex.

Retail Recommendation

Based upon this review of area retail outlets, SKMG believes that any office-oriented retail developed in association with the transit facilities should focus predominantly on food and restaurant uses, capturing a portion of the 50 percent of office worker retail dollars spent on food and beverages. The remaining 50 percent spent on comparison goods is likely to continue to be captured by retailers at existing comparison goods locations, such as the Embarcadero Center, Union Square, San Francisco Centre, or Crocker Galleria. To be most successful, such retailers require a large concentration of comparison goods retailers, a lack of which contributed to the failure of the original comparison goods retailers at Rincon Center.

Demand Considerations

It is difficult to develop an estimate of net demand for food-related retail uses at the transit facilities without inventorying all food establishments within walking distance of the Transbay Terminal. However, general estimates of demand can be developed based upon the area's supply of office space and assumptions regarding office worker spending and supportable retail sales. Therefore, for estimation purposes, SKMG assumes a supportable sales volume of \$250 sales per square foot, an office space ratio of 250 gross square feet per person,⁵ and per office worker

⁵This is a standard assumption for a downtown office market.

restaurant expenditures of \$1,250 annually (i.e., one-half the total retail amount spent annually in their workplace community).

Restaurant outlets located south of Market Street attract office tenants from north of Market Street office buildings and vice versa. However, a reasonable proxy for the level of demand for food establishments within the transit facilities' market area is the pool of office workers located in the SOMA Financial District, which encompasses the Transbay Terminal site and the Main/Beale site. This office submarket contains 10.5 million square feet of existing office inventory, of which 9.3 million square feet is occupied. Assuming this SOMA occupied inventory grows by about 275,000 square feet annually to 2005,⁶ when the train station is likely to be operational, SKMG projects that SOMA Financial District office tenants can support a total of 240,000 square feet of restaurant space. Each added increment of 1.0 million square feet would provide support for an additional 20,000 square feet of restaurant space.

This 240,000-square-foot estimate encompasses existing space, such as the 65,000 square feet of retail at Rincon Center, most of which is devoted to a food court, the 53,000 square feet of retail at One Market Plaza, which also includes a large food court, and numerous independent restaurants located throughout the area. Therefore, only a portion of this demand could be captured at the Transbay Terminal site.

SKMG believes that a reasonable capture of SOMA office worker restaurant demand would be 20 percent, assuming that a highly appealing destination retail attraction is provided, along with the food and beverage space. Thus, approximately 50,000 square feet of such space could be supported.

DESTINATION RETAIL

Conditions for Destination Retail

Destination shopping requires support from both local residents and tourists, where the appeal of a place is the primary draw. Union Square, in combination with San Francisco Centre, comprises San Francisco's premier destination shopping area. Its many department stores and substantial critical mass make this the largest concentration of retail space in the Bay Area, with several million square feet of space. As a result, it is very difficult for other shopping districts to emerge as competition for Union Square. In like manner, San Francisco's tourist-oriented retail draws, such as Fisherman's Wharf/Pier 39, Ghirardelli Square, and Chinatown provide incomparable shopping opportunities (see Exhibit 7 for existing and planned destination retail locations). To be successful, such centers require three major features:

1. a location where people are otherwise drawn, such as a waterfront or historic architectural landmark;

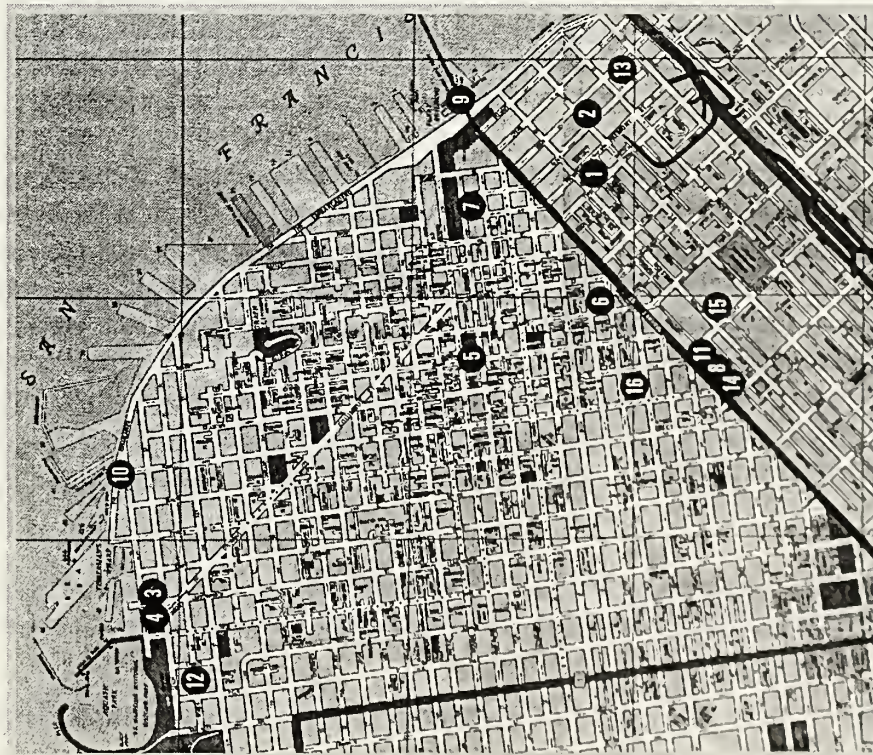
⁶SKMG projects San Francisco office market absorption of 555,000 to 600,000 square feet annually; SOMA has the ability to capture about one-half of this demand.

Exhibit 7

DESTINATION RETAIL CENTERS, EXISTING AND PLANNED

SAN FRANCISCO

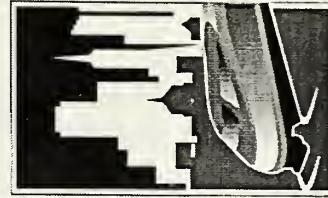
May 1996



MAP TERMINAL SITE

- 1 Transbay Terminal Site
- 2 Main/Beale Site

MAP #	RETAIL CENTER	RETAIL SQUARE FOOTAGE
3	Anchorage Shopping Center	150,000
4	Cannery Shopping Center	88,000
5	Chinatown	Over 1,000,000
6	Crocker Galleria	88,000
7	Embarcadero Center	400,000
8	Emporium; Closed (Planned New Retail)	350-680,000
9	Ferry Building (Planned Entertainment/Retail)	60-100,000
10	Fisherman's Wharf / Pier 39	Several Million
11	Fourth & Market Sts. (Planned)	422,000
12	Ghirardelli Square	178,000
13	Post Office Site (Planned)	400-500,000
14	San Francisco Centre	1,102,000
15	Sony Entertainment Retail Center (Planned)	330-360,000
16	Union Square Area	Several Million



Sources: Leasing Managers: 1996 Shopping Center Directory, N.R.B.; San Francisco Planning Department; ROMA Design Group; Sedway Kotin Mouchly Group.

2. a critical mass of retail, often exceeding several hundred thousand square feet of space (and several million square feet in the case of Union Square); and
3. a retail opportunity unique to the region, such as is provided by Fisherman's Wharf/Pier 39 and Chinatown, and will be provided by the planned Sony Entertainment Center at Yerba Buena.

If destination retail is to be included in a transit joint development project, sufficient scale will be required, and the project would need to include a major anchor attraction or retailer in order to compete with San Francisco's existing and planned destination centers.

Future Prospects for Destination Retail

San Francisco is a largely built-out community. As such, limited new demand for retail will be generated from population growth. After leveling off during the recent recession, visitation to San Francisco is again on the rise and is likely to increase modestly at about 3.0 percent, or approximately 4,000 visitors, annually. Cumulatively, these trends do not suggest substantial increases in demand for new retail centers.

Already, San Francisco's existing destination retail centers compete heavily for market share, with many centers struggling, such as Fisherman's Wharf, Chinatown, Ghirardelli Square, and the Cannery. This competition will become even more fierce in the future as additional competitive space is completed. Union Square retailing will continue to expand, with Bloomingdales likely to move into the vacated Emporium space on Market Street, and the possible development of an approved retail center at Fourth and Market streets. Other future destination retail centers planned for San Francisco include the renovation of the Ferry Building and the development of the approved Sony project near Moscone Center. While not so far along in the development process, a large (400,000- to 500,000-square-foot) entertainment retail project is also under consideration at the Post Office site in SOMA (see Exhibit 7 for location). With the addition of these centers, it is likely that retail competition will increase over already high levels, further reducing market share for many retailers and centers.

To inaugurate a new competitive destination retail location would require critical mass, strong locational amenities, and an ample supply of parking. In this regard, the Transbay Terminal site is highly disadvantaged relative to several of the new destination retail centers already planned. Bloomingdales and the Fourth and Market street project will function as extensions of Union Square, and the Sony project will draw demand from Yerba Buena's strong and growing base of convention goers and cultural visitors. In addition, it is close to Union Square retailing. While the Ferry Building will benefit from its location next to the Embarcadero Center, it has several barriers constraining its accessibility, including the Bay and the Embarcadero. All of these projects, with the exception of the Ferry Building, have a large, existing base of parking to meet shoppers' needs.

To SKMG's knowledge, there is only one instance of a successful major destination retail center developed in association with a major transit center. This is the 300,000 square feet of commer-

cial space in the Union Station project in the District of Columbia, with 200,000 square feet in retail and 100,000 square feet in office space. This center has many advantages that a center developed at the Transbay Terminal would lack. For example, Union Station is both an Amtrak and commuter rail station and a Metro transfer station, with large volumes of commuters and travelers, totaling 73,000 trip ends per day. In addition, the Union Station is an architectural landmark that creates a highly dramatic space. Thus, it provides a spectacular venue for retailers and is a tourist attraction in its own right. Union Station is also located in the midst of one of the nation's busiest tourist locales, in proximity to the U.S. Capitol Building, numerous hotels, the National Gallery, and the Library of Congress. Finally, the Union Station development provides a substantial supply of parking.

SKMG considered other major retail centers that are well-served by transit:

- Tower City Center in Cleveland;
- San Francisco Centre;
- The Gallery at Market East in Philadelphia; and
- Eaton Centre in Toronto.

However, these are not major transit centers, as proposed at the Transbay Terminal site. Instead, they are centrally located destination retail centers that benefit from excellent transit access. However, automobile access is also excellent, with substantial parking provided.

SKMG also identified several inter-city/commuter rail-oriented transit centers:

- Northwestern Station, Chicago;
- Union Station, Chicago;
- South Station, Boston; and
- 30th Street Station, Philadelphia.

These stations have successfully provided modest amounts of retail space oriented toward commuters and nearby office workers. However, they would not be considered major destination retail centers.

Redevelopment of the Transbay Terminal as a train and possibly bus terminal will serve only regional commuters. In the longer term, the facility is expected to serve inter-city rail travelers as well. The Transbay Terminal's surrounding uses are predominantly high-rise office buildings, with relatively little appeal to tourists. The Moscone Convention Center and adjacent tourist and visitor attractions are located four to five blocks distant from the Transbay Terminal site. This is too great a distance to easily walk and to develop synergistic attractions. Based upon comparisons with other transit facilities, SKMG believes that a major destination retail center would be very difficult to develop and support at the Transbay Terminal site, but would be possible if properly implemented.

CONCLUSION

In order to be successful, a retail center at the Transbay Terminal site (or, alternatively, the Main/Beale Bus Terminal) will need to draw from three distinct markets:

- commuter-oriented market;
- local office worker market; and
- tourists and other destination retail shoppers.

In addition, such a development must have the following characteristics:

- a critical mass to differentiate the subject retail center as a destination center, with a minimum of 150,000 square feet;
- retail space strategically located to capture passing commuters;
- retail space oriented toward pedestrian traffic on the street level to draw in local office workers;
- architectural space that is sufficiently unique or grand to attract shoppers; and
- a strong tenant mix.

While SKMG believes that it will be quite difficult, a destination retail center of at least 150,000 square feet could successfully be developed at the Transbay Terminal sites, contingent on extremely strong management and operation of the center. As previously discussed, of the minimum 150,000 square feet, commuters would account for demand for about 20,000 to 40,000 square feet of retail space, and restaurants for office workers would account for about 50,000 square feet of space. The remaining 60,000 to 80,000 or more square feet would be devoted to shopping for destination and office worker shoppers.

In addition to the Transbay Terminal site, the Main/Beale site also has the physical capacity to accommodate a destination retail center. The Main/Beale Bus Terminal site has the potential for more linear street frontage than the Transbay Terminal site, providing a greater street-pedestrian orientation. In addition, the potential may exist for underground parking at the Main/Beale site. However, the cost of this parking is estimated at \$60,000 per space, which is a likely prohibitive cost without substantial public subsidy.⁷ Yet, SKMG does not believe that the Main/Beale Bus Terminal site is a promising destination retail center location. While this site has several favorable attributes, it also lacks attributes critical to a destination retail center's success, such as a location on a major thoroughfare, the potential for an architecturally unique space, and proximity to the heart of San Francisco's Financial District.

⁷ICF Kaiser Engineers, Inc.

V. DESIGN ISSUES

FOCUS OF DESIGN ISSUES

The benefits of joint development can only be attained with excellent, creative and intelligent design. This chapter outlines the most important design characteristics needed to achieve a successful joint development.

TRANSIT OPERATIONS

In conducting this analysis, it is assumed that transit operations are paramount. Thus, any uses developed adjacent to, above, or below the transit facilities should enhance and not detract from the operational efficiency of the transit facility. Retail shops or commercial office uses participate in the private marketplace, and are designed to change in response to market forces. In a joint development, the more permanent transit facilities must take precedence over the more flexible private uses.

Transit is infrastructure, the *foundation* for the City's commercial and residential growth and development. This foundation must be built to work as well as possible, so that commercial and residential uses are well supported.

The transit facilities will be an *expression of public commitment*, an opportunity for San Francisco to welcome commuters to the City; this expression should be eloquent, the welcome should be grand, and the joint development should be accomplished with care so as to enhance the image of this gateway to the City.

The components of operational efficiency are several: Trains and buses need to be able to enter and exit quickly and safely. Users must have safe, convenient connections between trains, buses, BART, and the street. Commuters need broad platforms, clear pathways, and easy-to-understand graphics. The public spaces must be bright, pleasant, and daylit wherever possible. The entrance to the City must be commodious, and the entrance from the City to the train or bus must be accessible, obvious, and civic in scale.

JOINT DEVELOPMENT USE: OFFICES

Offices are by far the predominant use in the commercial district, and an office building that participates in the San Francisco market must have certain characteristics. These include a simply-shaped floor plan with lease depths between 40 and 50 feet; a structural system that provides seismic resistance as well as preferably column-free rental space; an efficient core providing adequate elevator and mechanical services to all parts of the floor and legal exiting from all areas; and a distinctive ground floor lobby at a good address, accessible and visible from the street. In some cases, access to parking is also required to provide competitive office space.

These essential characteristics can sometimes be difficult to produce even on a site unencumbered by a transit facility; in a joint development, there are several ways that the transit facility can have an impact on the design of an office building.

Structural spans for office buildings are different from those for transit facilities, whose track dimensions and clearance requirements admit very little flexibility for adjustment. This can be resolved in a number of ways, all of which add cost.

Core elements such as elevator shafts, stairs, and vertical mechanical ducts must be continuous from the ground floor lobby up through all of the floors above grade, and so would have to penetrate any above-grade transit facility. This puzzle can be solved only by adroit placement of the core elements, or of the transit elements, either of which is likely to add complication and cost.

An office building's entry lobby must be located at the ground floor, on a well-traveled street. It should be *independent* of the transit facility, so that it can be secured at non-business hours, and so that the transit facility can be accessible without going through the lobby of an office building. This condition is entirely dependent on location, and it means that not all areas above a transit facility can be developed effectively as office space.

An office building must establish an identity of its own, an image which gives its tenants a recognized address that is visible from a distance and accessible from a taxi. This is also a function of location, but in a joint development project, the identities of the transit facility and the joint users are often connected (e.g., Terminal Tower in Cleveland; and the old New York Central Tower and Met Life Tower in Manhattan), and this should be deliberate rather than accidental.

JOINT DEVELOPMENT USE: RETAIL

Three types of retail are described in the previous chapter. While each has distinct characteristics and design determinants, the one thing they all have in common is a need for *visibility*. For commuter-oriented retail this means adjacency to the path traveled by commuters; for office-oriented retail, adjacency to a well-traveled sidewalk or street; and for destination retail, it can also mean adjacency to a spectacular place that attracts potential customers.

Commuter-oriented retail uses require small spaces, ranging from 200 to 2,000 square feet, with shallow lease depths usually not exceeding 40 feet, and relatively small back-of-house area. Each shop's space must be on a single level, with a minimum ceiling height of 10 feet. Where two shops face one another across a corridor, the minimum corridor width is 30 feet.

Office-oriented retail uses average 3,000 square feet in size or greater, and can utilize lease depths of 90-100 feet, with larger back-of-house areas. A single store can sometimes occupy two levels with internal connections, with public visibility preferred from both levels. In a joint

development situation, such a shop needs visibility from both the street and from within the terminal. Minimum ceiling height is 12 feet.

Destination retail uses vary widely in size, from the size of commuter-oriented spaces to much larger, superstore scale. Ceiling heights and lease depths also vary, but parking access for customers is essential, as is direct access to and visibility from the street. Even with large-scale destination retail centers, such as San Francisco Centre and Embarcadero Center, strong street-frontage retail is provided which entices shoppers into these major centers.

The transit facility offers a number of locations for joint development of retail shops, along streets and sidewalks, lining transfer corridors, and at mezzanines between different transit modes. For destination retail, the transit station offers an opportunity to create a spectacular place, in the main ticket hall and entrance to the transit facilities, especially if the common street-level terminal area provides access to both buses and trains. Competitive retail spaces also require parking for customers, and service areas with access to a loading dock.

Retail space is generally fairly flexible, as long as its location is visible to its main customer base with some limit on the depth from street front to back. However, the success of retail space seems to be much more sensitive to market conditions than it is to characteristics of design.

DESIGN CONCLUSIONS

Regardless of the joint development use, the station's design should provide a warm and grand welcome to the thousands of commuters, shoppers, and visitors who will enter San Francisco every day through this new gateway. Yet, for a transit-based joint development use to be successful, the manner in which it is incorporated into the transit facility must minimize the inherent design constraints while maximizing the design considerations that are necessary to ensure market success.

VI. MARKET AND DESIGN OPTIMIZATION

IDENTIFICATION OF JOINT DEVELOPMENT OPPORTUNITIES

Based upon the preceding design principles, Gensler and SKMG have identified office and retail development opportunities for two scenarios: (1) development of the CalTrain station at the existing Transbay Terminal site with development of the new bus terminal at Main/Beale; and (2) development of both the CalTrain station and the bus terminal at the existing Transbay Terminal site, with the train operations below grade and the bus operations above grade. Possible office and retail joint development opportunities have been identified, based upon the pattern of public property ownership in the area, sensitivity to office and retail design considerations, and general development economics. All square footage estimates designated on the exhibits are preliminary estimates based upon general site assumptions. These estimates would require extensive refinement during project design phases.

Joint Development Opportunities: Scenario 1 – Main and Beale Bus Terminal Site

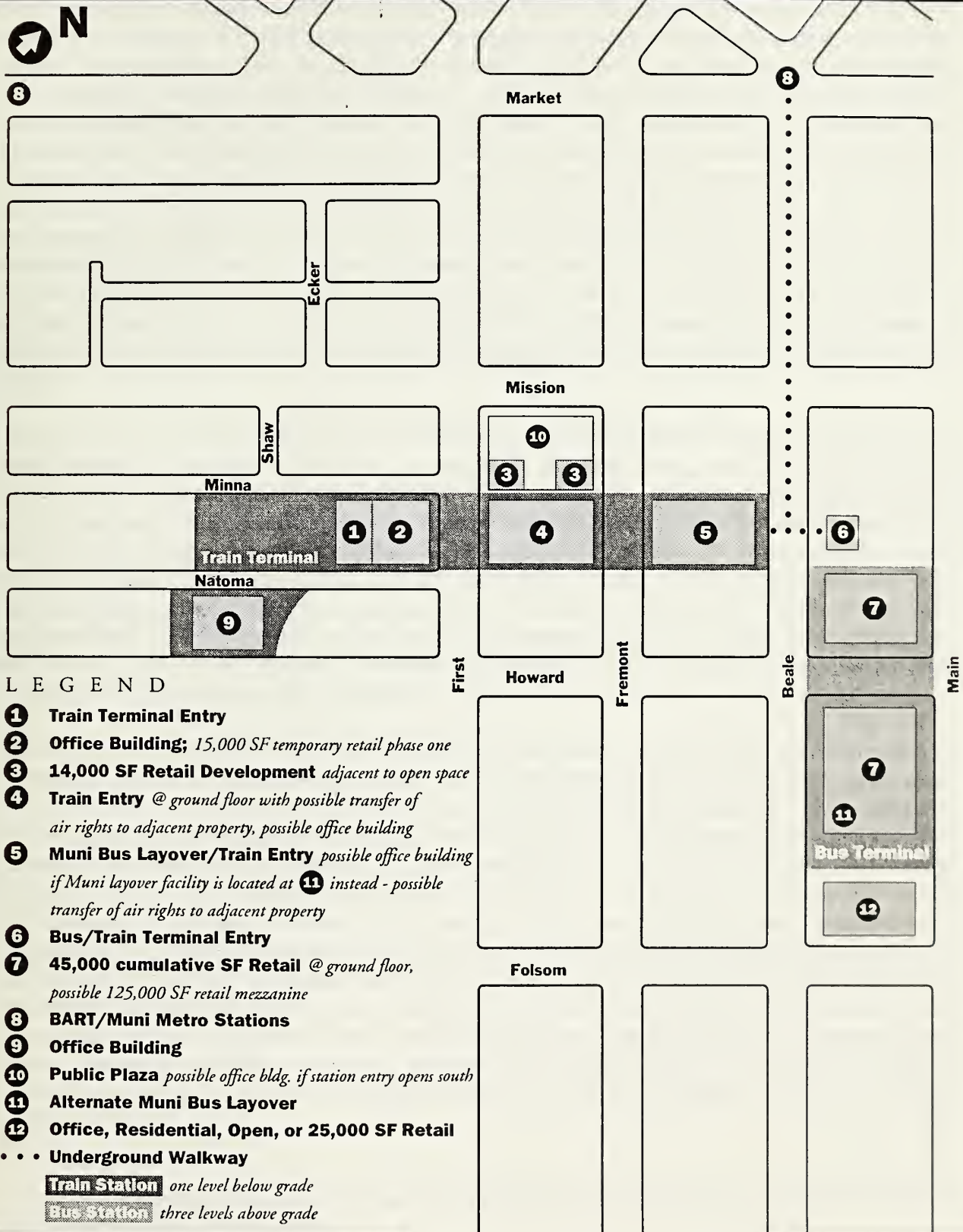
The first scenario of possible joint development opportunities assumes the CalTrain station is developed below grade at the existing Transbay Terminal site and that the current Transbay Terminal bus operations are relocated to a structure with two levels above grade at a site between Main and Beale streets, straddling Howard Street. Joint development opportunities have been identified, along with major entries to the train station and the planned Muni bus layover area, and are indicated by numbers 1 through 12 on Exhibit 8. The dark shaded area identifies the underground train station area and the light shaded area identifies the bus terminal footprint, with the terminal spanning Howard Street.

Location No. 2 on Exhibit 8 identifies a potential development opportunity, strategically located adjacent to an entryway to the train station (Location No. 1) and next to an existing high-quality office tower. This site has long-term potential for office development, pending market and economic feasibility, as well as completion of the train station. Currently, the San Francisco office market is not sufficiently strong to warrant new construction. As previously discussed, SKMG forecasts a recovery of this market, with new demand for newly constructed space emerging in future years. However, this site is above the planned train station, which accounts for why the project could not be built until after completion of the CalTrain extension. Alternatively, the site could be developed with 15,000 square feet of retail space. This space could be temporary if office development were feasible in the long term. Because of its location, this office site is not likely to be developed until after other, better located sites along major arterials with more desirable "addresses" are developed. Moreover, it is likely that office development at this site will block afternoon sun of any public open space on portions of blocks presently occupied by the Transbay Terminal.

In addition to having a development constraint regarding timing, construction of office space above a train station will incur costs above those a developer would experience on an unencumbered site. A previous study regarding the relocation of the Transbay Terminal

EXHIBIT 8

Joint Development Opportunities Main & Beale Bus Terminal Site



Caltrain, Downtown Expansion, San Francisco

concluded that it would not be economically feasible to develop an office building over the new bus terminal at Main and Beale streets.⁸ This lack of feasibility was largely attributed to the added foundation and superstructure support costs. Incremental foundation and superstructure support cost estimates have also been prepared regarding development over an underground train station. These estimates total approximately \$10 to \$12 million. An example of a major added cost component follows. The fixed locations of the train tracks will mean that columns for the office building could not be efficiently located, which would impact elevator placement and building layout. Overcoming this constraint would most likely require a structural transfer floor above the train tracks which would create structural discontinuities between the superstructure and foundation. Construction of a structural transfer floor would add significantly to the cost of the foundation, which cost would be greater the taller the building (i.e., the amount of load transferred would be greater). These incremental costs would most definitely impact feasibility and revenue that could be generated for the site. Moreover, these costs would need to be incurred up front, during initial construction of the train facility. Only if these elements are included in the train station infrastructure will it later be possible to develop an office building over the station.

Location No. 3 on Exhibit 8 could be developed with 14,000 square feet of retail space at a highly strategic location in front of the terminal. As envisioned, the site would also be immediately adjacent to an open space plaza (Location No. 10), which could provide the main entry to the train terminal. If demand is sufficiently strong, there may also be some potential for second-story retail space, suitable for dining establishments. Alternatively, these combined areas could be developed with office space, comprising a prime SOMA office development site, with a Mission Street address and strong identity. This building could include CalTrain access from Mission Street, such as through a dedicated entry incorporated into a building by creating an interior mall type of development. Alternatively, entry to CalTrain could be incorporated into Location No. 4 (see following paragraph) or south of Location No. 4, through a land swap.

Location No. 4 on Exhibit 8 denotes the main train terminal entrance at the ground level. The consulting team has identified an opportunity for the development of 20,000 square feet of retail space on this site. With excellent visibility and the envisioned plaza (Location No. 3), this site has strong market potential for development of an office tower. However, the ground level is planned for terminal use, including ticketing and waiting areas. Thus, there will be little potential for an office lobby, thereby making this site difficult and therefore unlikely for office development. In addition, column spacing and core placement requirements imposed by the underground train terminal structure will make development expensive, as with Location No. 2. The economic feasibility of such a development would need to be further explored before full endorsement in the joint development program. If such an office tower were developed, great care would need to be given to ensure tenant identity and security. Adjacent privately owned parcels, however, could benefit from a purchase of air rights from the terminal site. Such a development could be physically integrated with the station and thereby establish a strong locational identity.

⁸*Financial Opportunities for the Transbay Terminal*, Mundie & Associates and Pittman & Hames Associates, February 1996, page 25,

The property designated as Location No. 5 is the Muni bus layover area, for which no joint development opportunities are anticipated, but where there will be an entry to the train station. Joint development opportunities would not likely be possible over this site because of the operational needs of the facility, which preclude ground level joint use and access. However, there may be the potential for air rights development of office space connected to office development on adjacent private parcels to the north or south over the Muni facility. Alternatively, the site's air rights could be transferred to other developable properties. If the Muni bus layover is instead located elsewhere (see Location No. 11 mentioned below), then Location No. 5 could instead be available as an office development site.

Location No. 6 provides an entry to the bus terminal as well as underground connection to the Embarcadero BART/Muni station on Market Street (Location No. 8). Location No. 7 provides several retail joint development opportunities relative to the new bus terminal. Such development will be most feasible at the north end of the bus terminal site where the maximum number of pedestrians can be intercepted. Within the bus terminal structure, overall ground floor retail totaling 45,000 square feet could be accommodated. Approximately another 125,000 square feet of retail space could also be developed between the ground level and the bus terminal. This mezzanine-level space would boost the total retail potential of this site to approximately 170,000 square feet (this can be boosted even further by incorporating Location No. 12). Because bus passengers would support only a small amount of retail space, and train passengers would be difficult to capture at this location, it would be very important for such a center to attract other sources of demand. The visibility of this site will be favorable for retail, with frontage along Main, Beale, and Howard. However, the site lacks other locational features that would benefit a destination retail center. In addition, as previously mentioned, this site can accommodate underground parking if need be, albeit at an extraordinarily high cost.

Location No. 9, created by the demolition of ramps to the existing terminal and the removal of several small buildings required for the construction of the underground train terminal, could serve as an office development site, with access from Howard, Natoma, and Minna streets. As with Location No. 2, costs to develop will be higher here than on an unencumbered site as a result of the underground rail tunnel. Moreover, as with Location No. 2, this site could not be developed until after completion of the train station. Further, development of this site will likely lag development of better located sites and will possibly obscure afternoon sun on portions of blocks presently occupied by the Transbay Terminal.

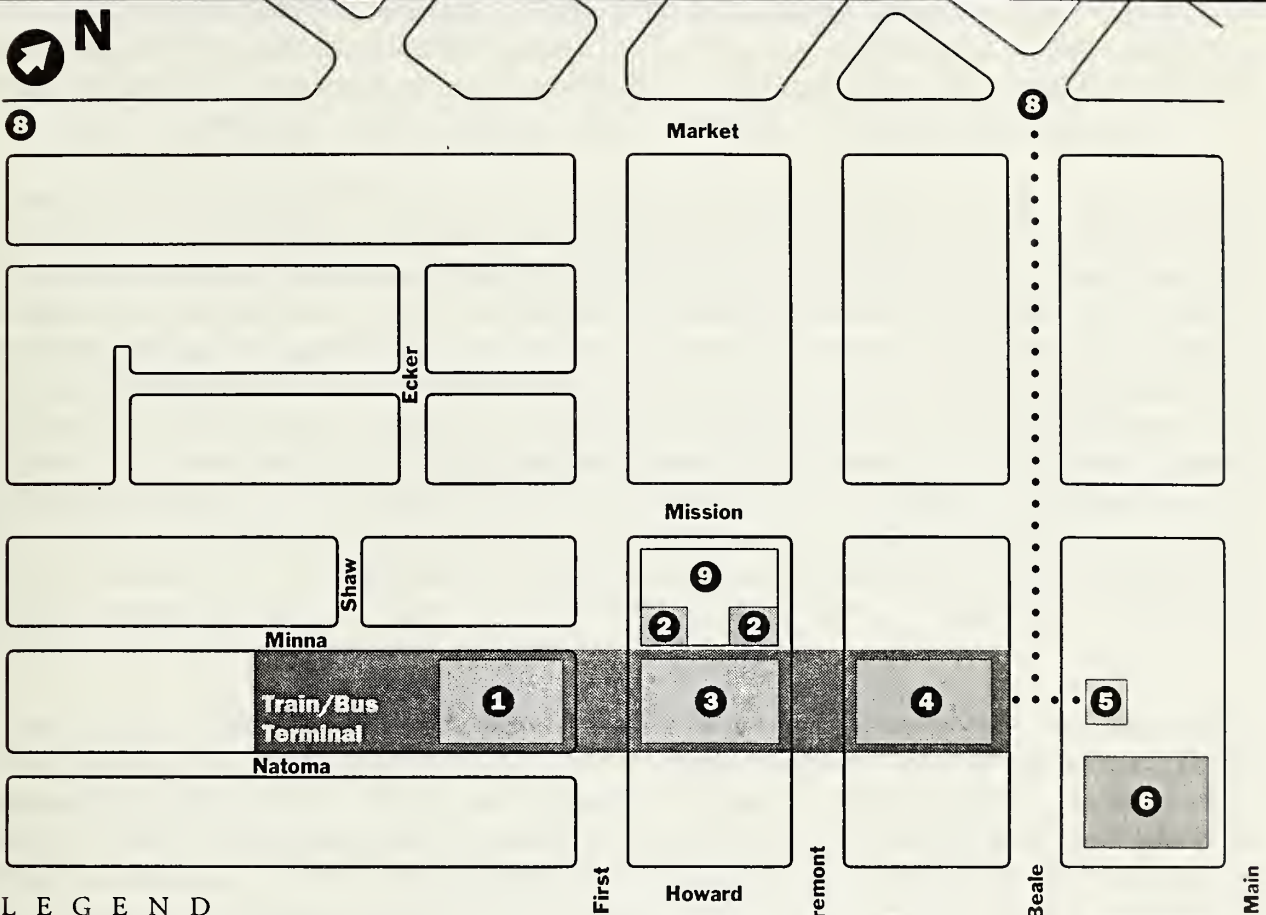
Finally, Location No. 11 is an alternate Muni bus layover site, and Location No. 12 may have a variety of potential uses including a major open space, office, residential, or perhaps retail.

Joint Development Opportunities: Scenario 2 – TBT Bus Terminal Site

This second scenario assumes that the CalTrain station and bus terminal are built at the same location, with the train station below grade, the bus terminal two levels above grade, and with grade level reserved for entrances, ticketing, and possible joint development opportunities. This location is indicated as the dark shaded area on Exhibit 9. Other joint development opportunities associated with this scenario are also depicted on Exhibit 9.

EXHIBIT 9

Joint Development Opportunities TBT Bus Terminal Site



LEGEND

- 1** Train/Bus Terminal Entry and
15,000 SF Retail *possible 60,000 SF retail mezzanine*
- 2** 14,000 SF Retail Development *adjacent to open space*
- 3** Train/Bus Terminal *possible 40,000 SF retail mezzanine
possible office building*
- 4** Muni Bus Layover/Train Entry *possible 40,000 SF
retail mezzanine- possible transfer of air rights to adjacent prop.*
- 5** Bus/Train Terminal Entry
- 6** Office Building
- 7** Office Building
- 8** BART/Muni Metro Stations
- 9** Public Plaza *possible office bldg. if station entry faces south*
- 10** Office, Residential, Open, or SF 25,000 Retail
- ... Underground Walkway

Train Station *one level below grade*

Bus Station *three levels above grade*

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Location No. 1 on Exhibit 9 identifies a possible entryway to the transportation facility, paired with retail accessible to all transit riders. As previously discussed, an office tower located above a several-level train and bus terminal is likely to be economically infeasible under current and anticipated market conditions. As with Scenario 1, Location No. 2 represents 14,000 square feet of retail space at the main entrance to the combined bus and train terminal. Additional potential may exist for second-story retail space that might be suitable for dining establishments.

Location No. 3 on Exhibit 9 denotes the main transit facility entrance at the ground level with an additional 20,000-square-foot retail area. Transit ticketing is assumed to be provided on this level. Given that the bus terminal would be developed two levels above grade, development of an office tower above the bus levels would likely be infeasible. However, a retail level could be developed between the ground level and the bus terminal. This space would have the advantage of a location that could intercept both bus and train passengers. However, both train passengers and street-level pedestrians would need to ascend one level from ground to access this space. As a result, train riders could leave directly from the ground floor or through an underground tunnel without ever passing by the largest increment of retail space in this scenario. Assuming that this retail space is developed over both the main terminal entry as well as the Muni bus layover facility (Location No. 4), preliminary calculations suggest the potential for the development of 150,000 square feet of retail space. As with the previous scenario, a retail center of this size would necessarily be a destination retail center.

In this scenario, SKMG believes it would be possible to successfully develop a destination retail center as part of the transportation terminal, with a minimum size of 150,000 square feet. To be successful, however, such a center must appeal to commuters, office workers, and destination shoppers, with a substantial portion of the retail space devoted to food and beverage tenants. A critical design issue will be the interface between the mezzanine-level retail space and the ground-level sidewalk. This design should "pull in" pedestrians into the center, minimizing the barrier of the level change.

The Muni bus layover has the potential for air rights office development connected to office development on adjacent private parcels to the north or south, as well as the transfer of air rights to other properties. The property designated as Location No. 5 is identified as a bus/train terminal entry, with underground connections to the transit facility and the Embarcadero BART/Muni Metro station on Market Street (Location No. 8). The portion of Location No. 6 in closest proximity to Location No. 5 could also be suitable for limited retail space.

Locations 6 and 7 have been identified as good office development sites. Because they are not directly associated with the transit facility, these sites would have no extraordinary development costs. As a result, they would be subject to the same development economics as any other major area office development. The only distinction would be their development on public property, if subject to a ground lease rather than land acquisition. A ground lease program could influence the marketability of the site, as some investors prefer ownership over ground leases. However, the sites are more likely to be sold given Caltrans' requirement that all property not directly related to transportation be declared surplus and sold. Such a sale would generate a lump sum payment, which could be used to offset transit facility construction or operation costs. Once the

office market rebounds, enhancing the marketability of these sites, such a sale would generate a large amount of revenue.

Finally, Location No. 9 is available as a public plaza area in front of the main terminal entrance.

RECOMMENDATIONS

Like any new development project, the market for a transit terminal station joint development project must be demand-driven. Without market demand, there would be no economic justification or support for new development. Therefore, in formulating a joint development program for the train terminal or bus terminal or surrounding properties, special consideration must be given to the timing, amount, and nature of projected demand. If demand is projected to be strong at the time of completion of the train and bus terminals, then joint development uses could be developed concurrently with the terminal facilities. If, instead, demand is not expected to emerge until well after facility construction, then the facilities should be designed to accommodate future additional development.

SKMG believes that by the time the train and bus terminals are developed, sufficient demand will exist for some of the potential ground-floor retail uses, assuming they are designed to be highly visible and maximize accessibility to transit patrons and the street. These spaces could be developed by the terminal development entity as part of the overall terminal program. However, SKMG recommends that the marketing, leasing and management be undertaken by a professional property marketing and management firm. This space should be targeted to retailers and restaurants catering to the needs of transit commuters and area office workers. As stated earlier, SKMG believes that a destination retail center of approximately 150,000 square feet could be successfully developed under Scenario Number 2 in which the bus and rail stations are in a single integrated facility. However, successful execution of such a center will be extremely difficult.

There is a range of public/private arrangements that could be negotiated to implement a transportation center-based destination retail center. These arrangements would need to provide for both one-time and ongoing costs, such as facility design and construction, construction management, tenant improvements, and operating expenses, including management, insurance, and utilities.

For a developer to be attracted, the center should be of a sufficient size to create a critical mass and healthy mix of retail and restaurant opportunities. Such a developer, however, would likely need to make a substantial financial and operational commitment. This commitment could be through a long-term master lease with the Joint Powers Board, designed to generate an annual flow of funds to cover the construction costs and, optimally, additional funds to offset transit operations costs. Alternatively, an arrangement could be made where the retail developer provides some of the up-front construction costs with correspondingly reduced annual lease payments.

Regardless of the joint development structure, public/private negotiations would likely be lengthy and time-consuming. Accordingly, there should be sufficient lead time to allow for a careful developer attraction, selection and negotiation process. This is especially true since any transit-based destination retail center would need to be included in the construction program concurrent with the overall transit facility construction. Before any decision is made to proceed with this joint development, however, SKMG recommends further study to determine the magnitude of the associated costs. Such further study should include architectural, engineering, and cost assessments, as well as real estate transaction analysis.

Development of office uses will be somewhat more problematic than the commuter- and office-oriented retail areas. The Transbay Terminal site, the nearby site on First Street between Minna and Natoma, the Howard/Natoma/Minna site on the west, and the Main/Beale site are all well-located for office development. They are adjacent to existing office buildings and are well located within the SOMA Financial District. However, with all the other office projects already approved – and awaiting a favorable development climate prior to construction initiation – it is unlikely that any joint development office project could be developed concurrent with train station or bus terminal completion. Several projects have full development approvals and are ready to proceed. In contrast, joint development of the transit terminal property will require an extensive developer selection and negotiation process, along with a traditionally lengthy public approvals process. Thus, any possible office development of the subject site would likely be many years into the future.

Joint development programs of the terminal properties will require considerable imagination and flexibility, to allow for future phased development in a manner which also maximizes the property's potential. In brief, SKMG recommends a program that allows for near-term small-scale retail development that is developed concurrently with the terminal facilities. Designs should permit future development of more ambitious office towers.

ASSUMPTIONS AND GENERAL LIMITING CONDITIONS

Sedway Kotin Mouchly Group (SKMG) has made extensive efforts to confirm the accuracy and timeliness of the information contained in this study. Such information was compiled from a variety of sources, including interviews with government officials, review of City and County documents, and other third parties deemed to be reliable. Although SKMG believes all information in this study is correct, it does not warrant the accuracy of such information and assumes no responsibility for inaccuracies in the information by third parties. We have no responsibility to update this report for events and circumstances occurring after the date of this report. Further, no guarantee is made as to the possible effect on development of present or future federal, state or local legislation, including any regarding environmental or ecological matters.

The accompanying projections and analyses are based on estimates and assumptions developed in connection with the study. In turn, these assumptions, and their relation to the projections, were developed using currently available economic data and other relevant information. It is the nature of forecasting, however, that some assumptions may not materialize, and unanticipated events and circumstances may occur. Therefore, actual results achieved during the projection period will likely vary from the projections, and some of the variations may be material to the conclusions of the analysis.

Contractual obligations do not include access to or ownership transfer of any electronic data processing files, programs or models completed directly for or as by-products of this research effort, unless explicitly so agreed as part of the contract.

This report may not be used for any purpose other than that for which it is prepared. Neither all nor any part of the contents of this study shall be disseminated to the public through publication advertising media, public relations, news media, sales media, or any other public means of communication without prior written consent and approval of Sedway Kotin Mouchly Group.

